

Living Together: Largemouth Bass and Northern Snakehead

The Problem

Largemouth bass have been living in the Potomac River since the late 1800's. In 2004, a potential competitor, northern snakehead, was first collected in the same habitats where largemouth bass live in the Potomac River. Since then, the snakehead population has expanded and grown. In 2007, northern snakehead first appeared during the annual tidal bass survey. Its impact on largemouth bass populations may be important, but is not known.

The Question

Will northern snakehead damage largemouth bass populations?

Methods

During 2010, the Maryland Fishery Resources Office (USFWS) and MDDNR worked together to learn distribution and diets of northern snakehead and largemouth bass throughout the year.

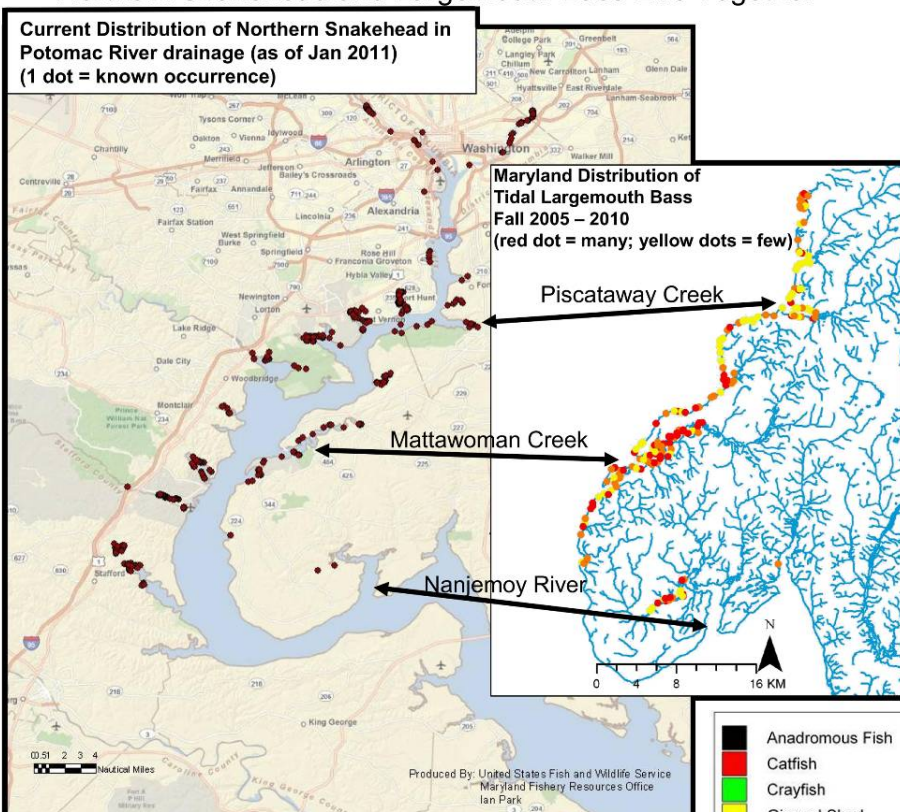
Results

- Northern snakehead and largemouth bass live in similar areas throughout the year; both associate with submerged structure; northern snakehead are caught by anglers fishing for bass
- Northern snakehead and largemouth bass both prey on eachothers' offspring
- Northern snakehead and largemouth bass are expected to be moderate competitors
- Northern snakehead ate mainly soft-rayed fish, but also white perch and other spiny-rayed fish.
- Largemouth bass ate crayfish and spiny-rayed fish, and some soft-rayed fish.
- Population models indicated that the biomass of largemouth bass increased when modest numbers of northern snakehead were harvested



Northern Snakehead and Largemouth Bass Live Together

Current Distribution of Northern Snakehead in Potomac River drainage (as of Jan 2011)
(1 dot = known occurrence)

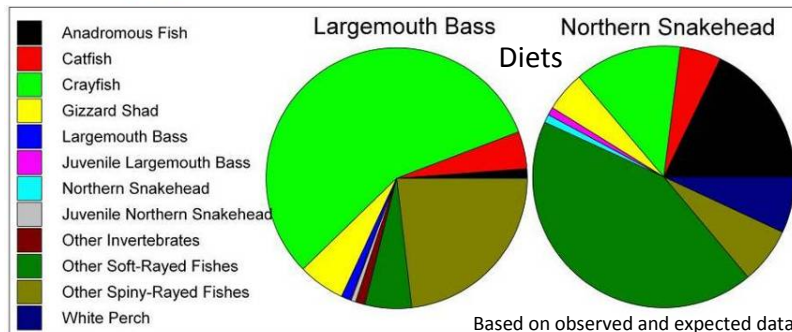


Discussion

Killing snakehead helps protect the largemouth bass population. Anglers should fish for snakehead during spring before it spawns. Northern snakeheads are active from spring to September. Northern snakeheads move long distances within the river; they do not "walk" across land, but survive a long time out of the water. Two black bass tournaments in 2010 (PVA and MBFN) provided prizes for the largest snakehead caught during their tournaments. Tagging work conducted by USFWS Maryland Fishery Resources Office demonstrates that northern snakeheads have increased in distribution and abundance since their introduction. They have been reportedly caught from St. Jerome's Creek (near the mouth of the Potomac River) and the Nanticoke River. Blue catfish, another exotic species, has been in the Potomac for at least 3 decades. It may also compete with largemouth bass. Managing these inland fishes protects the Potomac's largemouth bass fishery.

Acknowledgements—We thank biologists with the Southern Region Office (MDDNR) and numerous cooperative anglers for their efforts in tagging fish, reporting tagged fish, and providing fish for diet work.

For questions or comments—MDDNR: Joseph W. Love, Ph.D., Tidal Bass Manager, 580 Taylor Avenue, Annapolis, MD, 21401. Phone: (410) 260-8257. E-mail: jllove@dnr.state.md.us. USFWS: Joshua J. Newhard, Fish Biologist, Maryland Fishery Resources Office, Annapolis, MD. E-mail: joshua_newhard@fws.gov. Still Fishing? Visit: www.dnr.state.md.us/fisheries/tidalbass.



Based on observed and expected data